



Stormwater Management Facilities & HOA's

John Siepmann

March 17, 2020





Designate Natural Spaces in Deed Restrictions





BMP?





PATHWAY TO SUCCESS

- Remove woody & invasive plants
- Repair Eroded Soils
- Manage Homeowners' Expectations



REMOVE WOODY PLANTS





RESTORE ERODED SOIL





MANICURED VS NATIVE VEGETATION

Manage Homeowners





MANICURED VS NATIVE VEGETATION

Manage Homeowners

— ctaf





Set Up for Success

Inverted Safety Shelf



Wholistic Approach



Vegetative Buffer



Emergent Vegetation





Fish





Minimize Future Expenses

Erosion





Proactive Maintenance





POND MAINTENANCE

- Dye
- Algaecide





POND MAINTENANCE

Aerate or Not Aerate?

Fountains v. Diffusers





POND MAINTENANCE

- Weeds
- Algae





POND MAINTENANCE

Muskrats





POND MAINTENANCE

Geese





LARGEST EXPENSES

- Equipment
- Maintenance
- Goose Control





AERATION EQUIPMENT

- Middle Pond
- 0.78 acres, 1,000' shoreline, Shallow – 4-6'
- Eurasian Watermilfoil, sago pondweed, floating leaf pondweed, bulrush, cattails, filamentous algae. Weed growth throughout. Shallow nature and the long “finger” extending north will be problematic.
- Aerating fountain. 5HP VFX for movement – \$7,590
- Regular maintenance (dye, treatments, scheduled visits) \$4,500.00



TYPICAL ANNUAL COSTS: 0.78 ACRE POND

- Electricity
\$750
- Dye & Algaecide
\$4,500
- Goose Control
\$7,500
- Equipment Storage
\$000

INFILTRATION BASINS







Proper Planning & Maintenance

- Performance
- Property Values
- Reduced Maintenance Costs





Proper Design, Planning & Maintenance of Native Vegetation = Less HOA Expense





